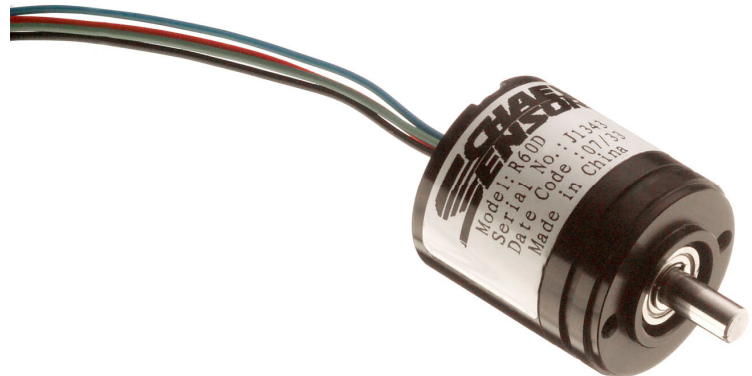


# R-60D RVITs (DC-Operated Rotary Variable Inductance Transformers)

**RVIT's** are DC operated noncontact rotary transducers. The RVIT proprietary design incorporates a set of four printed circuit coils and a light-weight aluminum spoiler to achieve superior response while maintaining a low moment of inertia. During operation, the light weight spoiler rotates with the transducer shaft, differentially altering the inductance of the printed circuit planar coils. The resulting unbalance is precisely measured using a patented autoplex circuit. This signal is then converted to a linear DC output voltage proportional to the angle of the rotor shaft. The digital circuit is extremely resistant to environmental disturbances and is compatible for use with most analog position feedback systems.

RVITs offer wide operating temperature range, infinite resolution, and a virtually infinite rotational cycle life.

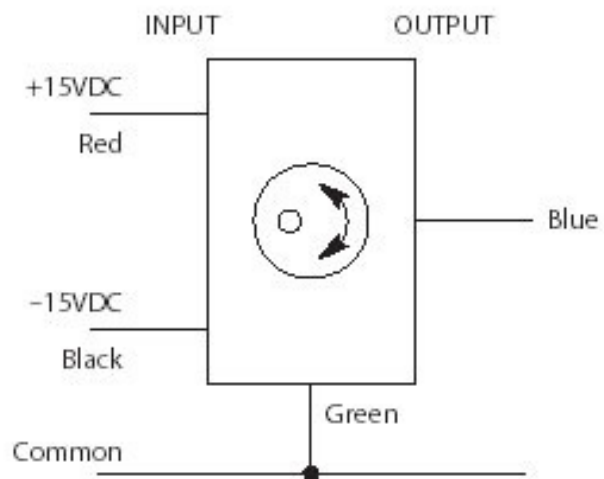


## R-60D

Calibrated over a  $\pm 60^\circ$  range, the R-60D provides a form and functional replacement for the R-30D, while supplying enhanced, extended range linearity, at a more cost effective price.

Due to the digital front end, the R-60D provides improved resistance to external EMI and RFI disturbances. Built in voltage regulation provides a stable, non-ratiometric output over varying input voltage conditions. Typical applications include ball valve position feedback, throttle and position level feedback and actuation feedback.

## wiring



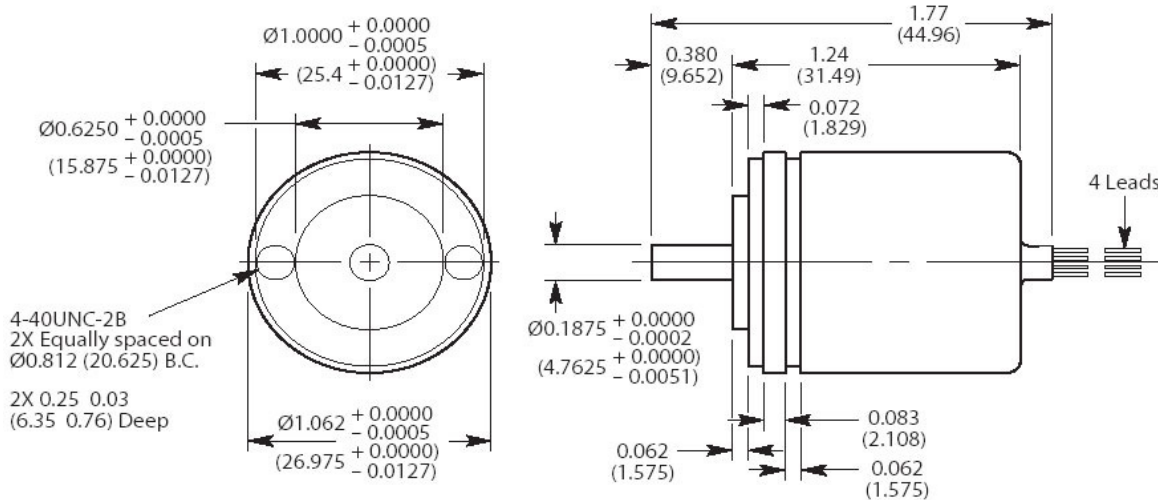
# R-60D RVITs (DC-Operated Rotary Variable Inductance Transformers)

**Full Range**  
**Input Voltage (nom)**  
**Scale Factor**  
**Output Voltage (nom)**  
**Input Current**  
**Output Current**  
**Output Impedance**  
**Frequency Response**  
**Linearity Error**  
**Non-repeatability & Hysteresis**  
**Storage Temperature Range**  
**Operating Temperature Range**  
**Temperature Coefficient of FS**  
**Lead Wires**  
**Torque**  
**Weight**  
**Mounting**  
**Bearings**  
**Shaft Diameter**  
**Axial Shaft Bearing Load Capacity**  
**Radial Shaft Bearing Load Capability**  
**Housing Material**

## Specifications

+/- 60°  
 +/- 15 Volts DC (+/- 10%)  
 0.125 V/°  
 +/- 7.5 VDC (at 60°)  
 21 mA  
 5 mA  
 <1 Ohms  
 200 Hz @ -3 dB  
 +/- 0.50% of full scale output (@ ±60-degrees)  
 0.1% of full scale output maximum  
 -67°F to 250°F (-55°C to 125°C)  
 -13°F to 185°F (-25°C to 85°C)  
 +/-0.02%/F° (0.04%°C)  
 24 AWG, PVC insulation, 4 wire, minimum 12" long  
 0.12 in-oz  
 1.2 oz (34 gm)  
 Size 11 Servo Mount BU-ORD  
 Shielded ABEC 3 Precision  
 3/16 in (4.76 mm)  
 10 lbs (4.54 kg)  
 10 lbs (4.54 kg)  
 Aluminum

## dimensions



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## ordering information

Specify by Model Number

R-Flex coupler available separately

| Model Number | Size | Range   |
|--------------|------|---------|
| R60D         | 11   | +/- 60° |

